

23.

A New Nematode, *Ascaris schroederi*, from a Giant Panda,
Ailuropoda melanoleuca.

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(Text-figures 1 & 2).

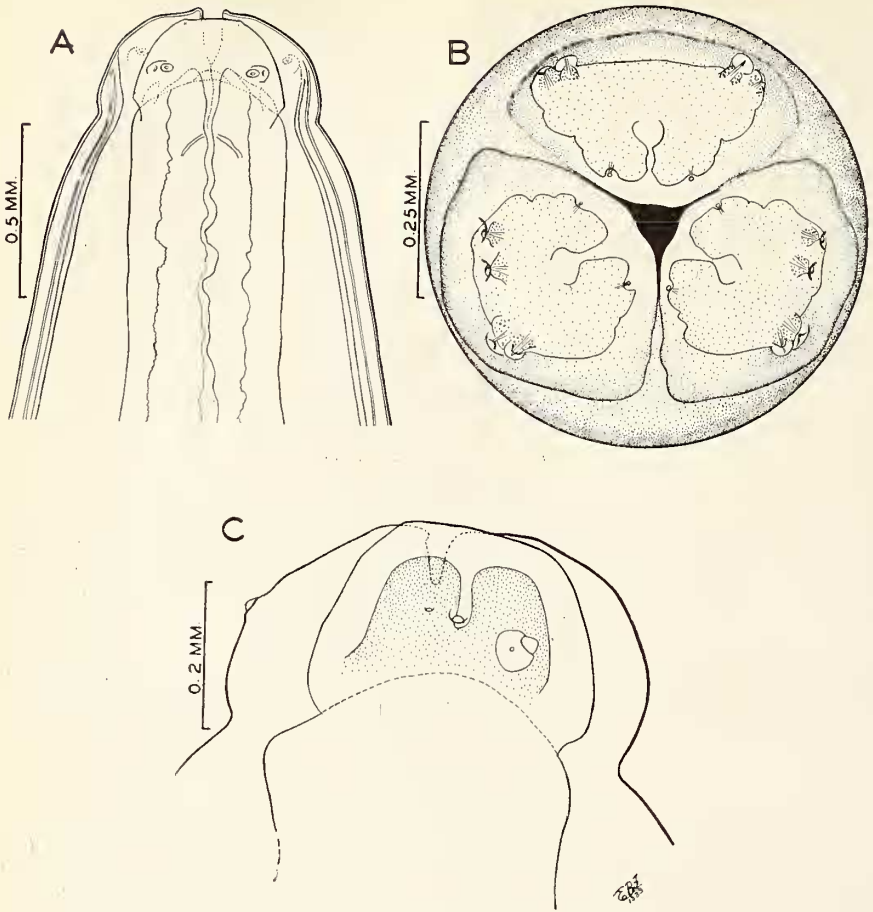
On June 29, 1939, Dr. Charles R. Schroeder, New York Zoological Park, forwarded to the Bureau of Animal Industry some specimens of ascarids from a giant panda, *Ailuropoda melanoleuca*, for identification. Dr. Schroeder stated in correspondence that the giant panda, an immature male, was received May 2, 1939, from West China Union University, Chengtu, Szechwan Province, China. The animal had repeatedly passed *Ascaris* eggs in its stools, and on June 27 it passed several roundworms. These specimens were found on examination to represent 4 males and 5 females of what is believed to be a new species of the genus *Ascaris*.

***Ascaris schroederi* n. sp.**

Length 9.75 cm. (male) to 12.5 cm. (female), breadth 2 mm. (male) to 2.6 mm. (female). Body white, tapering toward both ends; cuticula striated. Head (Text-fig. 1, A, C) with slight neck-like constriction at base of the three simple lips; interlabia absent. Dorsal lip apparently somewhat shorter than ventrolateral lips. Cephalic sensory organs (Text-fig. 1, B) similar to those figured by Chitwood & Chitwood (1938, An introduction to Nematology, p. 60), for *Ascaris lumbricoides*. Lip pulp divided anteriorly into two lobes; dentigerous ridges not conspicuous. Esophagus about 1/13 of body length, broadest near posterior end, without ventriculus. Neither esophageal nor intestinal diverticula present.

Male: Tail (Text-fig. 2, E) terminating in small button-like protuberance of parenchymatous origin; cloaca about 510μ from posterior end. Preanal papillae numerous, about 70 pairs situated in two rows; the proximal portion of the preanal group of papillae are fairly uniform in arrangement, while those more distant from the cloaca are often situated at irregular intervals, and with an occasional one out of line. A pair of double adanal papillae present, lateral and posterior to cloaca. Four pairs of postanal papillae present on middle third of tail, the anterior pair being double; of the remaining 3 pairs of postanal papillae the middle pair is the smallest. Spicules equal, about 600μ long, by 80μ wide anteriorly; they taper gradually, ending rather bluntly. A number of digitate processes, about 10μ long, present on the elevated anterior and posterior lips of cloaca.

Female: Tail (Text-fig. 2, D) tapering gradually but terminating bluntly; anus situated 1.42 mm. from end of tail. A pair of papillae (phas-



Text-figure 1.

Ascaris schroederi n. sp. **A**—Head, dorsal aspect; **B**—Head, cephalic aspect; **C**—Head, right lateral aspect.

mids) located subventrally about 350μ from end of tail. Vulva about $1/3$ of body length from anterior end. Eggs (Text-fig. 2, F) mammillated, 75μ long by 55μ wide.

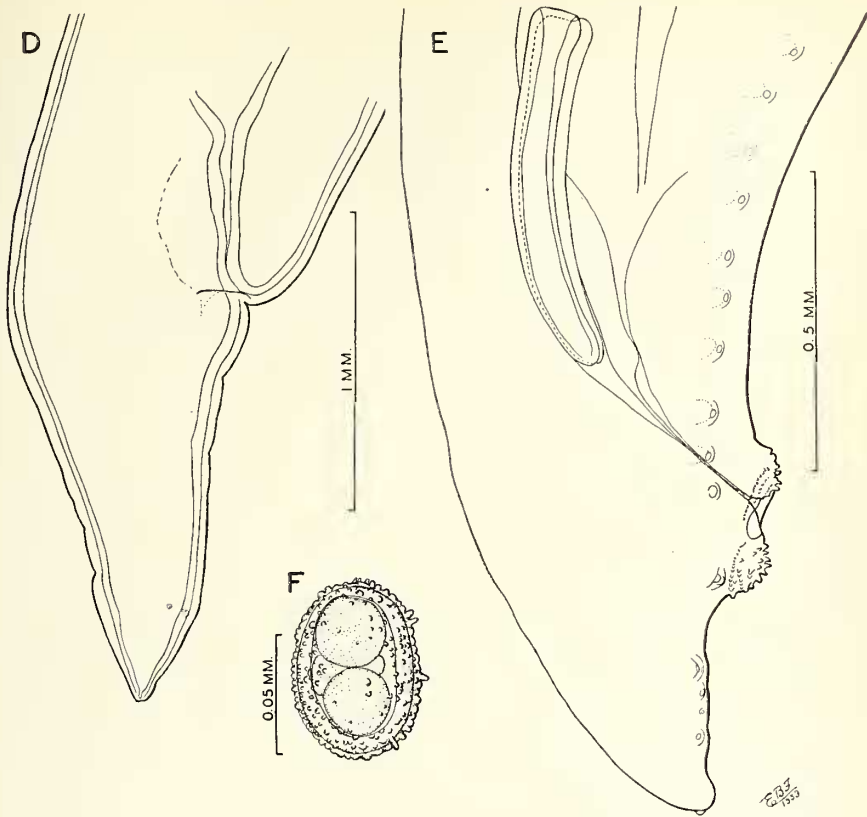
Host: Giant panda, *Ailuropoda melanoleuca*.

Location: Intestine (passed with stool).

Locality: New York Zoological Park. (Host recently received from Chengtu, Szechwan Province, China).

Specimens: U. S. N. M. Helm. Coll. No. 44059 (holotype, male, and allotype, female) and No. 44060 (paratypes, 3 males and 4 females).

Of the species remaining in the genus *Ascaris*, the new species appears to be more closely related to *Ascaris columnaris* Leidy, 1856. The males of these two species, however, may be separated by the greater number of preanal papillae present in *A. schroederi* n. sp., which are approximately twice the number reported for *A. columnaris*. The pronounced cuticular digitate



Text-figure 2.

Ascaris schroederi n. sp. **D**—Tail, female, lateral aspect; **E**—Tail, male, lateral aspect; **F**—Egg.

processes on the anterior and posterior lips of the cloaca also distinguish the new species from the other members of the genus. The females of *A. schroederi* and *A. columnaris* differ in the position of the vulva and the anus. In *A. schroederi* the anus is removed from the tail almost twice the distance as in *A. columnaris*; the vulva in the former is situated about $\frac{1}{3}$ of the length of the body from the anterior end, while in the latter it is situated at about $\frac{1}{4}$ of the length of the body from the anterior end. The new species may be further separated from *A. columnaris* by the length of the esophagus in proportion to the body length; the esophagus in *Ascaris schroederi* is about $\frac{1}{13}$ of the body length as compared with $\frac{1}{30}$ as given by Goodey & Cameron (1923, *Jour. Helminthol.* 1:1-8) for *Ascaris columnaris*.